

CLAIMS

We claim:

1. A method for removing a layer of an oil contaminant from the surface of an aqueous solution, comprising:

providing

a solution contaminated by oil as a result of an industrial activity, and

a surface skimmer which can be manually controlled from a remote location; and

manually controlling the surface skimmer to remove a layer of oil by the skimmer.

2. A method according to Claim 1, wherein the industrial activity is selected from the group consisting of parts cleaning and washing, cutting and grinding, die casting, metal plating, heat treating, surface finishing, pressure washing, steam cleaning, cooling, lubricating, cleaning, and food processing.

3. A method according to Claim 1, where the solution is enclosed in a tank at a location of the industrial activity.

4. A method according to Claim 1, wherein the oil comprises hydraulic oils, surface finishing oils, quench oils, way oils, cutting, grinding and hobbing oils, and oils derived from food sources.

5. A method according to Claim 1, further comprising separating the aqueous solution from the oil contaminant removed from the solution surface.

6. A method according to Claim 1, further comprising separating the aqueous solution from the oil contaminant removed from the solution surface, wherein the industrial activity is selected from the group consisting of parts cleaning and washing, cutting and grinding, die casting, metal plating, heat treating, surface finishing, pressure washing, steam cleaning, cooling, lubricating, cleaning, and food processing, wherein the solution is enclosed in a tank at a location of the industrial activity, wherein the oil comprises hydraulic oils, surface finishing oils,

quench oils, way oils, cutting, grinding and hobbing oils, and oils derived from food sources.

7. A method for removing a batch of an oil contaminant from the surface of an aqueous solution, comprising:

5 providing

a solution contaminated by oil as a result of a manufacturing process,
and

a surface skimmer which can be manually controlled from a remote location; and

10 manually controlling the surface skimmer to remove a layer of oil by the skimmer for a sufficient time to remove a batch of oil.

8. A system for removing a layer of an oil contaminant from the surface of an aqueous solution, comprising:

15 a surface skimmer;

a collection means;

a conduit connecting the skimmer to the collection means in an airtight fashion; and

means for creating negative pressure in the skimmer,

20 where the skimmer capable of manual control from a remote location, and where the solution is contaminated as a result of an industrial process.

9. A system according to Claim 8, wherein the skimmer is lightweight and portable.

25 10. A system according to Claim 8, wherein the collection means is lightweight and mobile.

30 11. A system according to Claim 10, wherein the collection means is a vertical separator.

11. A system according to Claim 8, wherein the skimmer is lightweight and portable, and wherein the collection means is lightweight and mobile and a vertical separator.

12. A device for removing a layer of an oil contaminant from the surface of an aqueous solution, comprising:

a surface skimmer;

a collection means;

a conduit connecting the skimmer to the collection means in an airtight fashion; and

means for creating negative pressure in the skimmer,
wherein the skimmer capable of manual control from a remote location and comprises

a hollow tube with two ends and two openings,

wherein a first opening is a skimmer inlet, where the inlet is an opening cut horizontally along the tube, and close to a first end which is closed,

and wherein a second opening is a skimmer outlet, and is a second end which is open and which can be connected to the conduit.

13. A device for removing a layer of an oil contaminant from the surface of solution, comprising:

a surface skimmer;

a collection means;

a conduit connecting the skimmer to the collection means in an airtight fashion; and

means for creating negative pressure in the skimmer,
where the skimmer capable of manual control from a remote location and comprises

a hollow tube with two ends and two openings,

where a first end of the tube is partially closed and comprises an inlet, where the inlet extends along the tube from the partially closed first end,

and where a second end of the tube is open and comprises an outlet,
and further where the tube is angled between the first and the second end.

14. A device according to Claim 13, wherein the tube is angled at a right angle.

15. A device according to Claim 13, wherein the skimmer further comprises a handle by which ~~the~~ skimmer can be remotely controlled.